## **REMARKS**

In the Official Action, the Examiner rejected claim 1 under the second paragraph of 35 U.S.C. §112 for failing to provide antecedent basis for the term "the solvent". In addition, the Examiner rejected claims 1-5 and 12-25 under 35 U.S.C. §112(b) as being anticipated by <u>Irizato et al.</u>, U.S. Patent No. 5,986,042, and rejected all of claims 1-25 under 35 U.S.C. §103(a) over <u>Irizato et al.</u> In addressing claims 6-12, the Examiner referred Comparative Example 4 of the patent.

By the present Amendment, editorial revisions have been made throughout the specification, claim 1 has been amended to address the antecedent basis issue and to include the recitations originally found in dependent claims 6 and 10, and claims 6-11 have been canceled without prejudice or disclaimer.

Consistent with the discussion provided in the specification, particularly in paragraph [0006] on page 3 of the specification, claim 1 has been amended to recite that the polyimide compound crosslinked with polyamine which is soluble in a solvent containing aprotic polar organic solvent is obtained by dehydration and condensation of amino acid or salt thereof in the presences of polyamine and protonic acid in the solvent containing the aprotic polar organic solvent. In addition, claim 1 has been amended to recite that 0.05 to 10 mol% of the polyamine is used with respect to the amount of said amino acid or salt thereof consistent with the description provided in the paragraph bridging pages 9 and 10. By preparing the polyamide compound in this manner, a structure can be obtained that is different from structures that are obtained when the defined dehydration and condensation is not used and a high molecular weight can be obtained without gelling. In particular, when the amino acid is crosslinked with the polyamine, the nitrogen atom originally present in the polyamine becomes part of the amide ring in the obtained polyamide compound. This understanding can be derived from the following illustration of the reaction between aspartic acid as the amino acid and lysine as the polyamine:

As can been from the foregoing formulas, the nitrogen atom derived from lysine is a member of the obtained amide ring. The advantages which can be obtained in accordance with the present invention, particularly a high molecular weight compound that is soluble in aprotic polar organic solvent is illustrated in the illustrative Examples. It will be noted from Comparative Example 1 that when the polyamine is omitted, and from Comparative Example 2 that when the protonic acid is omitted, a high molecular weight polymer is not obtained. Furthermore, Comparative Examples 3 and 4 illustrate that if the ratio of polyamine with respect to the amino acid or salt thereof is too high, gelling occurred.

Irizato et al. describes a crosslinked polymer having recurring units represented by defined formula (1) which has biodegradability and high waterabsorbency. The crosslinked polymer is obtained by crosslinking a polyamide compound (based on succinimide polymer) with a polyamine (based on lysine). In this reaction, the amide ring of the succinimide polymer is ring-opened and the nitrogen atom of the polyamine forms an amide bond. Using succinimide as the polyamide compound and lysine as the crosslinking agent, the obtained crosslinked polymer is represented by formula (3) as following:

As may been seen from this formula, the nitrogen atom from lysine constitutes a portion of the amide bond. In addition, it will be noted that in contrast to the structure set forth above which have amide rings that result in a hydrophobic property, <u>Irizato et al.</u> provides a different structure and specifically discloses that the polymer has a high water absorbency.

The Examiner has referred to Comparative Example 4 of the patent. This Comparative Example starts with 100 parts of polysuccinimide which is suspended in water and neutralized with 10 N HCl. To this solution were added 70 parts of L-aspartic acid and then 50 parts of lysine hydrochloride. The components were reacted at 220°C for 12 hours under a nitrogen gas stream and a product is collected in order to obtain 225 parts of superabsorbent polymer.

It will be noted that this Comparative Example starts with a formed polysuccinimide and then adds aspartic acid and lysine thereto. Additionally, in contrast to claim 1 which recites the presence of an aprotic polar organic solvent, such solvent is absent from the Example relied on by the Examiner. Furthermore, this Comparative Example would lead those of ordinary skill in the art away from the present invention by using a ratio of polyamine to amino acid or salt thereof that is far outside the range recited in amended claim 1. Accordingly, in view of the specific recitations of the claims now of record and in light of the evidence which has been provided, applicants respectfully submit that the claims now of record clearly and distinctly define all aspects of the present invention in a manner which is patentable

over the cited prior art. Accordingly, reconsideration and allowance of the present application are respectfully requested.

Should the Examiner have any questions concerning the subject application, the Examiner is invited to contact the undersigned attorney at the number provided below.

Respectfully submitted,

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